Listing of Claims:

This listing of claims will replace all prior versions, and listings, of claims in the application:

1. (currently amended) A black and white, infrared-sensitive photothermographic material comprising a support and having on at least one side thereof, one or more thermally developable imaging layers comprising a binder and, in reactive association, a photosensitive silver halide that is spectrally sensitized to the infrared region of the spectrum, a non-photosensitive source of reducible silver ions, and a reducing agent composition,

wherein said photothermographic material, when imaged and heat-processed, has an image tone that is characterized such that the value for b* for said imaged and heat-processed photothermographic material at an optical density of 1.0 is greater than its value for b* at D_{min}, wherein b* is defined in the CIELAB color system, and

wherein said one or more thermally developable imaging layers have a total absorbance of at least 1.0 at an infrared exposure wavelength of from about 700 to about 1400 nm to which said material is spectrally sensitized.

2. (cancelled).

3. (cancelled).

4. (original) The photothermographic material of claim 1 wherein said silver halide has been chemically sensitized with a sulfur-containing chemical sensitizing compound.

5. (original) The photothermographic material of claim 1, when imaged and heat-processed, has an image tone that is characterized as having a b* value at D_{min} that is greater than -13.

6. (original) The photothermographic material of claim 1, when imaged and heat-processed, has an image tone wherein the value for b* at an optical density of 1.0 is greater than the value for b* at D_{min} by at least 0.3.

7. (original) The photothermographic material of claim 1 wherein the photothermographic material exhibits a hue angle, h_{ab}, such that $220° < h_{ab}, < 260°$, where h_{ab} is the hue angle, $h_{ab} = \arctan(b^*/a^*)$, as measured at an optical density of 1.0, and as defined in the CIELAB color system.

8. (original) The photothermographic material of claim 1 further comprising a blue dye in the support or in one or more layers, or in both the support and one or more layers.

9. (previously presented) A method of forming a visible image comprising:

A) imagewise exposing the photothermographic material of claim 1 to infrared radiation to form a latent image, and

B) simultaneously or sequentially, heating said exposed photothermographic material to develop said latent image into a visible image.

10. (original) The method of claim 9 wherein said photothermographic material has a transparent support and said method further comprises:

C) positioning said exposed and heat-developed photothermographic material between a source of imaging radiation and an imageable material that is sensitive to said imaging radiation, and

D) exposing said imageable material to said imaging radiation through the visible image in said exposed and heat-developed photothermographic material to provide an image in said imageable material.

11. (original) The method of claim 9 wherein said imagewise exposed and heat-developed photothermographic material is used for a medical diagnosis.

12. (currently amended) The method of claim 9 wherein said imagewise infrared exposure is carried out using an electronic signal ~~image or images~~ obtained by computed radiographic means, digital radiographic means, or from digitally scanning a radiographic image in a wet-processed radiographic film.

13. (new) The photothermographic material of claim 1 wherein D_{min} is 0.2 optical density.

14. (new) The method of claim 9 wherein said exposed photothermographic material is developed at from about 110°C to about 135°C at from about 3 to about 25 seconds.

15. (new) The photothermographic material of claim 13 wherein said image tone is obtained when the photothermographic material is heat processed at from about 110°C to about 135°C at from about 3 to about 25 seconds.